Service Manual

FM/AM RADIO

A140

No.289A112

AutoSound

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SPECIFICATIONS

CASSETTE PLAYER

Playback System	4-track, 2-channel stereo
Tape Speed	4.75 cm/sec. (1-7/8 in/sec.)
Wow & Flutter	0.15% WRMS
Signal to Noise Ratio	47dB
Frequency Response	63Hz – 10kHz ±3dB

FM TUNER

Tuning Range	87.5 – 108MHz
Sensitivity	6dBμ
Separation	30dB
Signal to Noise Ratio	55dB

AM TUNER

MW:	Tuning Range	522 – 1,620kHz
	Sensitivity	35dBμ
	Signal to Noise Ratio	45dB
LW:	Tuning Range	146 – 290kHz
	Sensitivity	43dBμ
	Signal to Noise Ratio	44dB

AUDIO AMP & GENERAL

Maximum Output Power	7W×2
Power Supply	12V DC negative ground
Speaker Impedance	4 – 8 ohms
Dimentions (W×H×D)	178×50×150 mm

- Specifications are subject to change without notice.

ELECTRICAL ADJUSTMENTS

SERVICE NOTES

1. Make certain the power lead is connected properly to power source, otherwise damage to radio may result. If a battery eliminator is used as a power source in place of a battey, it must be filtered and regulated. (The power supply capacity should be more than 5 amps.)
2. Integrated circuits (ICs) are used in this unit. Because the ICs are direct-coupled devices, as to all electronic equipment, reading within 10% of the indicated values are acceptable. Allowance must also be made for variations in supply voltage. It is expected that any breakdown within the IC results in drastic changes of the operating voltages at the terminals.
3. When replacing a power output IC, remember to use the IC specified in the parts list; Coat the IC-fin with silicon grease.

WARNING

In using meters, signal generator and any tool in servicing ICs, extreme care is needed. **DO NOT SHORT** THE IC TERMINALS TO THE PATTERN ON THE PC BOARD OR TO EACH OTHER. THE IC WILL BE INSTANTANEOUSLY DESTROYED.

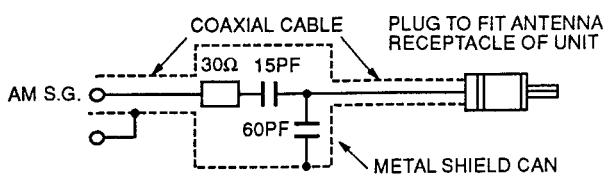
ALIGNMENT PROCEDURE

Alignment is performed at factory with laboratory equipment. Therefore, before alignment is attempted, the unit should be thoroughly checked for circuit troubles.

NOTES:

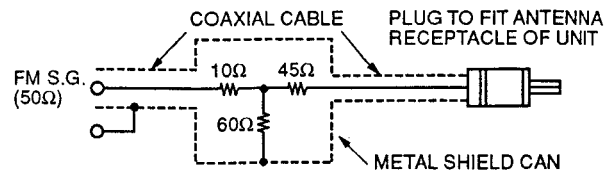
1. Check for specified source voltage-DC, 14.4 volts.
2. Connect an AC voltmeter (AC VM) across speaker or dummy load (4 ohms. 20W, wirewound resistor)...see **Fig. 1-3**.
3. Signal input must be kept as low as possible to avoid overload and clipping (use highest sensitivity of output indicator).
4. Repeat adjustment to ensure good results.
5. Non-metalic alignment tools must be used (especially at FM alignment).
6. For alignment location details, refer to CIRCUIT BOARD DIAGRAM.

DUMMY BOX SCHEMATIC



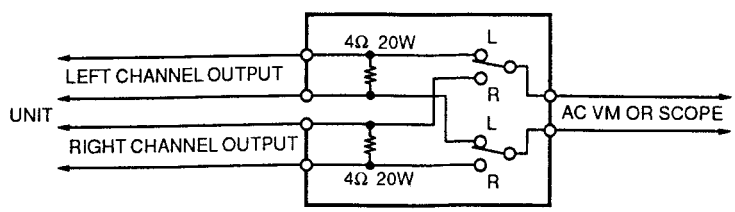
AM (MW) DUMMY ANTENNA

Fig.1-1



FM (UKW) DUMMY ANTENNA

Fig.1-2



DUMMY LOAD & SWITCH BOX (FOR STEREO UNIT)

Fig. 1-3

ELECTRICAL ADJUSTMENTS

ALIGNMENT OF AM RF & IF SECTION

Set the radio for AM reception. AM signal generator should be coupled with antenna receptacle through dummy (see **Fig.1-1**). Set VOLUME to maximum and TONE to center. Set LOUDNESS to off. Attenuate signal generator output to maintain 0.5 watts (1.4 volts across 4 ohms load) on AC voltmeter.

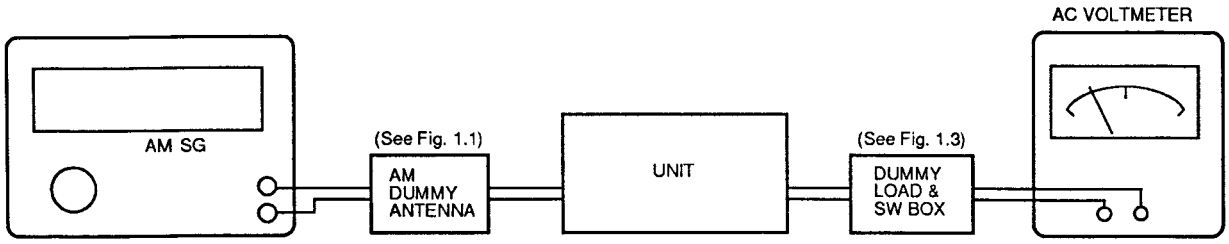


Fig. 2

STEP	GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT INDICATOR	ADJUST-MENT	REMARKS
1	612kHz 400Hz, 30% mod 20dBμ (10μV)	612kHz	AC VM through Left or Right channel load	IF PCB L136	Adjust for maximum output.

ALIGNMENT OF FM RF & IF SECTION

Set the radio for FM reception. FM signal generator should be coupled with antenna receptacle, through dummy (see **Fig. 1-2**).

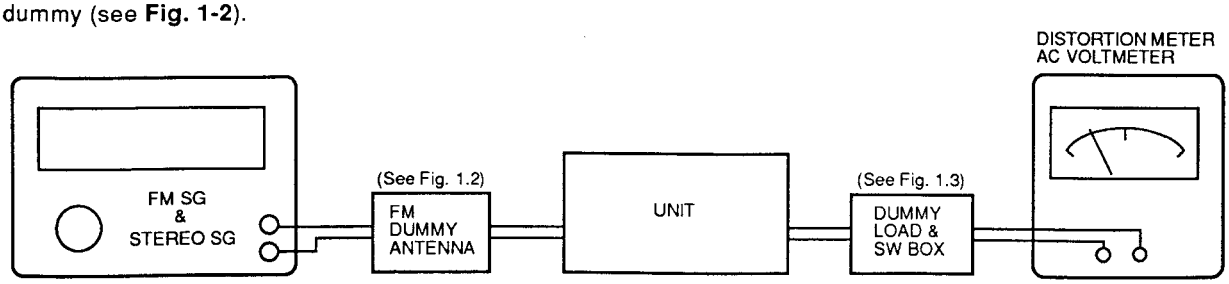


Fig. 3

STEP	GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT INDICATOR	ADJUST-MENT	REMARKS
1	98.1MHz 1kHz, 75kHz-dev. 60dBμ (1000μV)	98.1MHz	AC VM through Left or Right channel load	IF PCB L137	Adjust for minimum THD.
2	98.1MHz 1kHz, 22.5kHz-dev. 5 - 10μV	98.1MHz	AC VM through Left or Right channel load	F-RF PCB L106	Adjust for minimum THD.

ELECTRICAL ADJUSTMENTS

AM/FM TRACKING ADJUSTMENT

The data for IC131 (E^2PROM) needs to be changed or new data must be entered in the following cases:

1. When IC131 (E^2PROM) is replaced.
2. When the sensitivity becomes weak or the unit cannot receive signals after having changed one of any variable capacitance diode, capacitor, coil, or resistor in periphery of tuning circuit.
3. When IC130 is replaced.

In this case, a personal computer of either IBM or compatible one (XT-BUS, EGA, or upper grade) together with an adjustment kit are required for its operation.

The adjustment kit includes (1) a disc having adjustment program and (2) connection cable between the unit and the computer.

Please contact service division in detail.

ALIGNMENT OF FM MULTIPLEX SECTION

FM signal generator should be modulated by FM stereo signal generator.

Modulation level: 19kHz 10% (7.5kHz dev)
1000Hz 30% (22.5kHz dev)

FM signal generator output level: 1000μV

Frequency: 98.1MHz.

Set the radio for FM reception and tune to signal. Adjust VOLUME to provide 0.5 watt on AC VM and TONE to center.

Set L/R BALANCE for equal output at each channel.

IF PCB (3711820/3812120)

STEP	MODULATION FREQUENCY	OUTPUT INDICATOR	ADJUSTMENT	REMARKS
1	19kHz & 1000Hz (Left Channel)	AC VM through Right speaker or Right channel load	IF PCB R148	Adjust for minimum.
2	19kHz & 1000Hz (Right Channel)	AC VM through Left speaker or Left channel load	IF PCB R148	Check for minimum.

IF PCB (3711820/3811820)

STEP	MODULATION FREQUENCY	OUTPUT INDICATOR	ADJUSTMENT	REMARKS
1	19kHz & 1000Hz (Left Channel)	AC VM through Right speaker or Right channel load	IF PCB R148	Adjust for minimum.
2	19kHz & 1000Hz (Right Channel)	AC VM through Left speaker or Left channel load	IF PCB R148	Check for minimum.
3	19kHz & 1000Hz (Left Channel) 32dBμ Modulation	AC VM through Right speaker or Right channel load	IF PCB R160	Adjust separation for 12dB.
4	19kHz & 1000Hz (Right Channel) 32dBμ Modulation	AC VM through Left speaker or Left channel load	IF PCB R160	Adjust separation for 12dB.

ELECTRICAL ADJUSTMENTS

ALIGNMENT OF CASSETTE PLAYER

Set the wow/flutter meter for JIS/WRMS function.

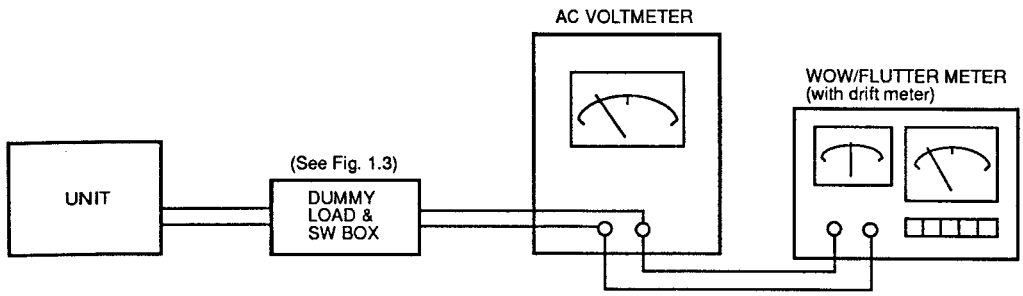
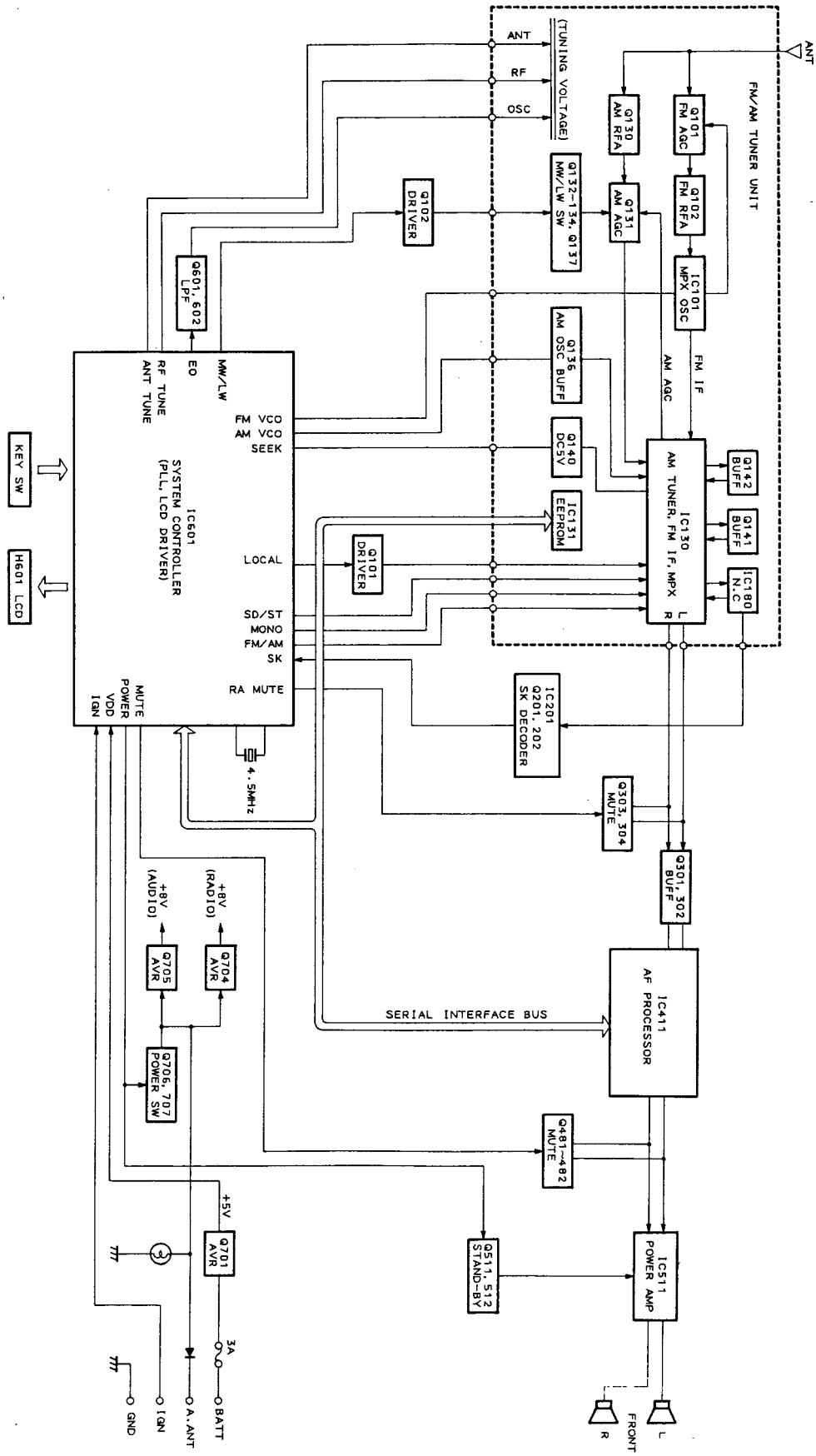


Fig. 4

STEP	ITEM	TEST TAPE	OUTPUT INDICATOR	ADJUSTMENT
1	Head Azimuth	MTT-114N	AC VM	Align azimuth (on head) for maximum output as well as balance on 1kHz between Left and Right channel output.
2	Wow/Flutter	MTT-111 (3kHz)	Wow/Flutter Meter	Check that the reading is less than 0.3% (JIS WRMS).
3	Tape Speed	MTT-111 (3kHz)	Tape Speed Drift Meter	Check that the reading is within –1% and +3%.

BLOCK DIAGRAM

A140



TERMINOLOGY REFERENCE

Terminology on schematic diagram is as follows:

Description	Ref. No.	CAD Code
♦ IC	IC101	LA3373, MT No Connection Description (LA3373) Circuit Reference Number Head Name
♦ Transistor	Q101	2SC2785T. E. F Rank No Connection Description (2SC2785) Circuit Reference Number Head Name
♦ Diode	D101	1S2835T No Connection Description (1S2835) Circuit Reference Number Head Name
♦ Resistor	R101	RC102F Tolerance F: ±1% G: ±2% J: ±5% (No Mark) K: ±10% M: ±20% H: No Connection Resistance (10 x 10^2 = 1000 ohms) Carbon Resistor 1/6W Circuit Reference Number Head Name
	R102	RA1R1 Resistance (1.1 ohm) Decimal Point Mark Chip Resistor 2125 Type 1/10W
♦ Capacitor (Chip)	C101	CA200C Temperature Characteristic C: CH, CJ, CK U: UJ S: SL B: B D: D Capacitance (20 x 10^0 = 20PF) Chip Capacitor 2125 Type Circuit Reference Number Head Name
♦ Capacitor (Ceramic)	C101	SL1R5H or S or Z No Connection Capacitance (1.5PF) Decimal Point Mark Characteristic (Ceramic SL)
♦ Capacitor (Electrolytic)	C101	ES1/50H or F or Z No Connection Voltage Proof (50V) Capacitance (1μF) Electrolytic SSM Type
♦ Hybrid IC	IC102	HIC* * * * * *	Code No. (3 ~ 8 Column → 11* * * * * *0)
♦ CR Component	CR101	CR* * * * * *	Code No. (3 ~ 8 Column → 11* * * * * *0)
♦ In-Line Block	IB101	IB* * * * * *	Code No. (3 ~ 8 Column → 11* * * * * *0)
♦ Serge Absorber	D102	Z* * * * * *	Code No. (3 ~ 8 Column → 13* * * * * *0)
♦ LED	LD101	LED* * * * * *	Code No. (3 ~ 8 Column → 14* * * * * *0)
♦ LCD	H101	LCD* * * * * *	Code No. (3 ~ 8 Column → 14* * * * * *0)
♦ FIP	H102	FIP* * * * * *	Code No. (3 ~ 8 Column → 14* * * * * *0)
♦ Pilot Lamp	PL101	PL* * * * * *	Code No. (3 ~ 8 Column → 14* * * * * *0)
♦ Neon Bulb	NE101	NE* * * * * *	Code No. (3 ~ 8 Column → 14* * * * * *0)
♦ Trimmer Cap.	C102	CT* * * * *	Code No. (5 ~ 9 Column → 1591* * * * *)
♦ CFC Assy	C103	CFC* * * * *	Code No. (5 ~ 9 Column → 1501* * * * *)
♦ Coil	L101	L* * * * * *	Code No. (3 ~ 8 Column → 17* * * * * *0)
♦ Filter	F101	F* * * * * *	Code No. (3 ~ 8 Column → 17* * * * * *0)

TERMINOLOGY REFERENCE

Description	Type	Capacitance Limit	No Marked Tolerance
Chip	CK, CJ, CH, UJ CH, UJ CH, SL SL, B D	1PF ~ 5PF 6PF ~ 10PF 12PF ~ 470PF 680PF ~ 0.022μF 0.033μF ~ 0.1μF	C (±0.25PF) D (±0.5PF) J (±5%) K (±10%) M (±20%)
Ceramic	 General B	1PF ~ 5PF 6PF ~ 10PF 12PF ~ 270PF 100PF ~ 680PF	C D J K
Semi-Conductor	SR BC	0.001μF ~ 0.068μF 0.1μF ~ 0.2μF	K Z (-20% ~ +80%)
Mylar (M)		0.001μF ~ 0.1μF	J
TF		0.1μF ~ 0.47μF	J
PS, NPS		470PF ~ 1000PF	G (±2%), J
ALSICON (AS)		0.1μF ~ 0.22μF	M
Tantalum (TA)		0.15μF ~ 10μF	M
Electrolytic	General	0.1μF ~ 220μF	M

Head Name	Description	Head Name	Description
ET	Electronic Tuner	MD	Modular
MT	Manual Tuner	NE	Neon Bulb
PT	Push Button Tuner	PL	Pilot Lamp
K	Relay	C*	Capacitor
MC	Microphone	R* *	Resistor
SP	Speaker	L	Transformer
IC	IC, Hybrid IC	L	Coil, Inductor
IB	In-Line Block	F	Ceramic Filter, Crystal
CR	CR Component	W	Printed Circuit Board
Q	Transistor	BL	Block PC Ass'y
D	Diode, Serge Absorber	P	Connector Post
LD	LED	TP	Check Pin
H	LCD	AJ	Antenna Jack
H	FIP	SW	Switch
N	Wire	VR	Volume

CAD Code	*Capacitor
CA* * *	Chip Capacitor 2125 Type
CB* * *	Chip Capacitor 3216 Type
SL* *	Ceramic Capacitor SL Type
B* *	Ceramic Capacitor B Type
F* *	Ceramic Capacitor F Type
CH* *	Ceramic Capacitor CH Type
LH* *	Ceramic Capacitor LH Type
PH* *	Ceramic Capacitor PH Type
RH* *	Ceramic Capacitor RH Type
SH* *	Ceramic Capacitor SH Type
TH* *	Ceramic Capacitor TH Type
UJ* *	Ceramic Capacitor UJ Type
SR* *	Semi-Conductor Cap. SR Type
BC* *	Semi-Conductor Cap. BC Type
M* *	Mylar Capacitor
TF* *	TF Capacitor
NP* *	NPS Capacitor
AS* * *	ALSICON Capacitor
TA* * * *	Tantalum Capacitor
ES* * * *	Electrolytic Cap. SSM Type
ESL* * * *	Electrolytic Cap. SSM-L Type
ESH* * * *	Electrolytic Cap. SSM-H Type
ESB* * * *	Electrolytic Cap. Bi-Polar
EG* * * *	Electrolytic Cap. GSM Type
EE* * * *	Electrolytic Cap. SEM Type

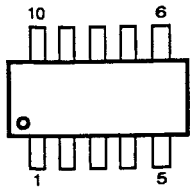
CAD Code	*Capacitor
EA* */* *	Electrolytic Cap. Aibis Type
EL* */* *	Electrolytic Cap. LSM Type
EH* */* *	Electrolytic Cap. HPW Type
CT* * * *	Trimmer Capacitor

CAD Code	* *Resistor
RA* * *	Chip Resistor 2125 Type
RB* * *	Chip Resistor 3216 Type
RC* * *	Carbon Resistor 1/6W S Type
RD* * *	Carbon Resistor 1/4W U Type
RU* * *	Carbon Resistor 1/6W U Type
RF* * *	Carbon Resistor 1/2W S Type
RK* * *F	Metal Film Resistor 1/4W S ±1%
RL* * *F	Metal Film Resistor 1/6W S ±1%
RP* * *	Metal Oxide Resistor 1W S Type
RQ* * *	Metal Oxide Resistor 2W S Type
RM* * *	Cement Resistor 5W S Type
RV* * *	Variable Resistor Vertical Type 6φ
RV* * *A	Variable Resistor Vertical Metal 6φ
RV* * *B	Variable Resistor Down Type 6φ
RV* * *C	Variable Resistor Vertical 6φ 4 pin
PR* * *	Printed Resistor (on PC Board)

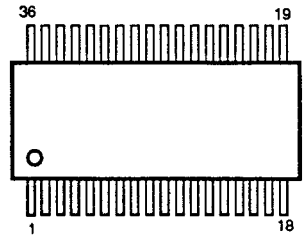
IC/TRANSISTOR LEAD IDENTIFICATION

A140

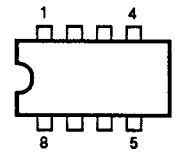
Bottom view or side view is shown below. However, for chip parts or flat package ICs, top view is illustrated.



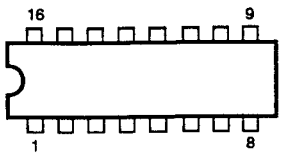
IC101



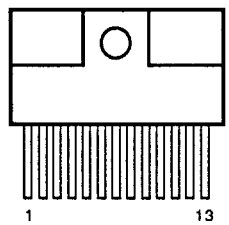
IC130, 411



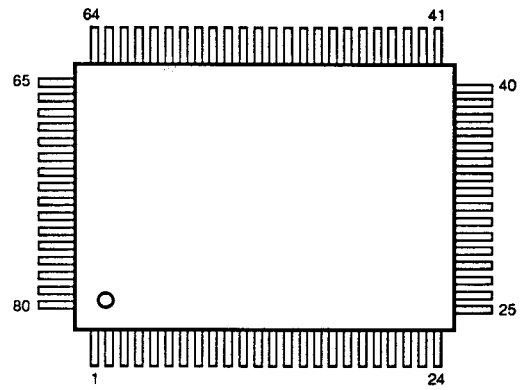
IC131



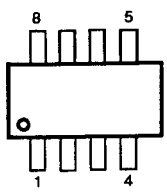
IC411



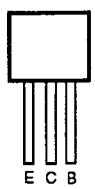
IC511



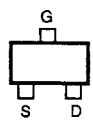
IC601



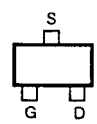
IC801



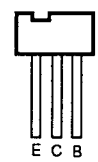
Q142, 143
Q705, 831



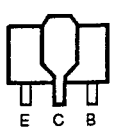
Q130



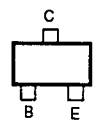
Q102
(F-RF PCB)



Q704

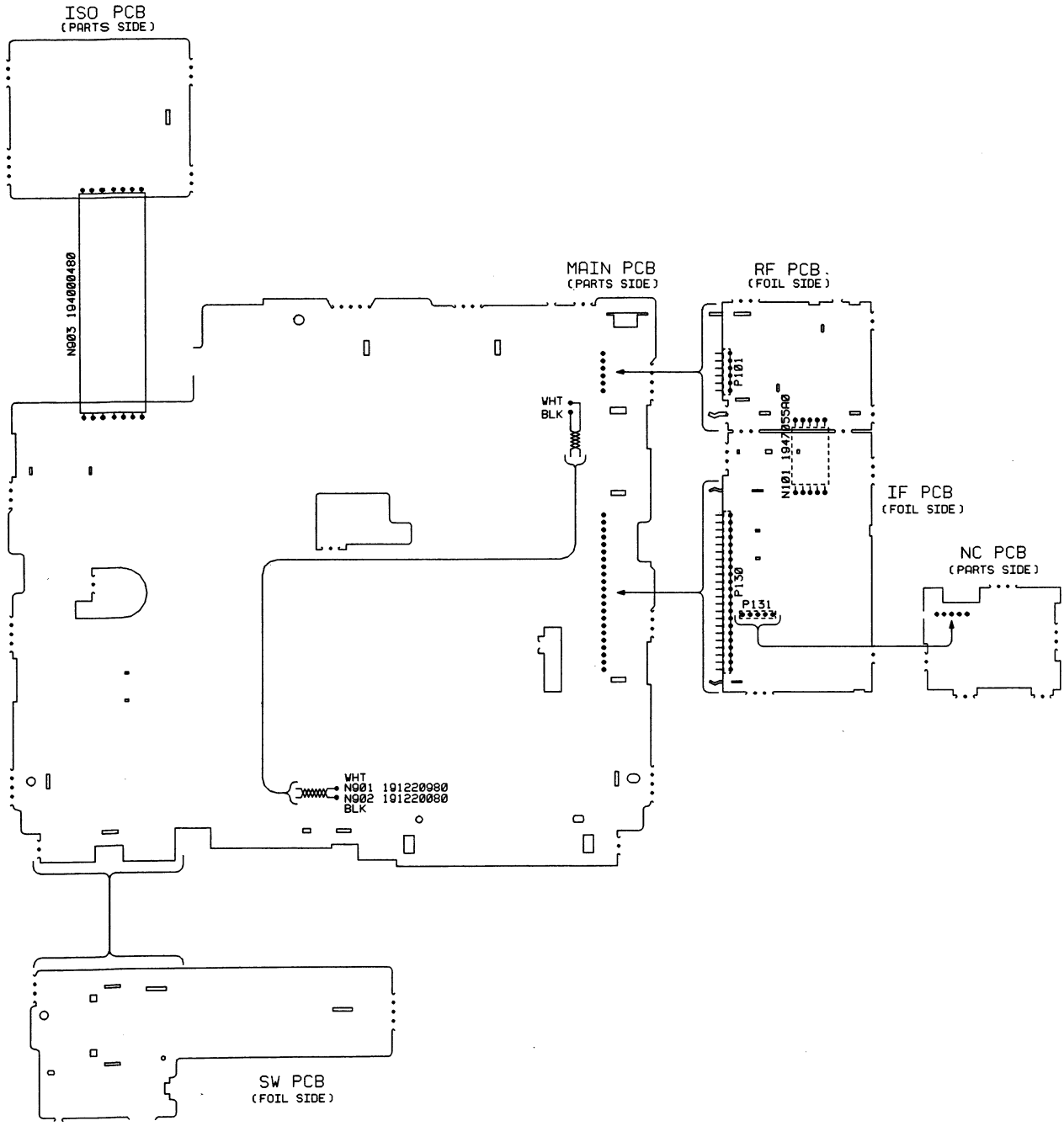


Q706



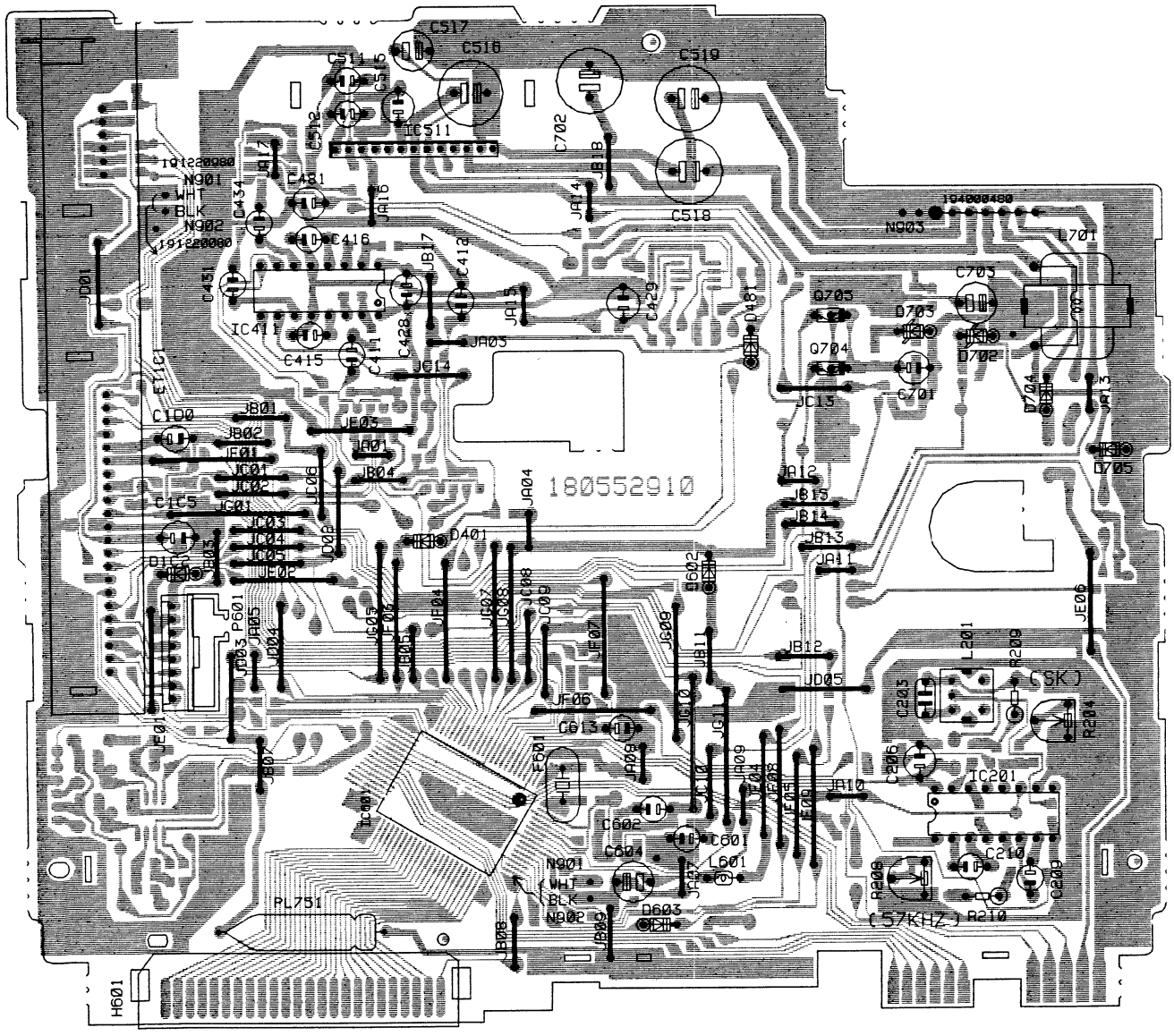
Q101, 102, 131, 132, 133, 134, 136
Q138, 139, 140, 141, 301, 302, 303
Q304, 481, 482, 511, 512, 551, 552
Q553, 601, 602, 701, 707, 832, 851
Q852
Q101(F-RF PCB)

WIRING DIAGRAM

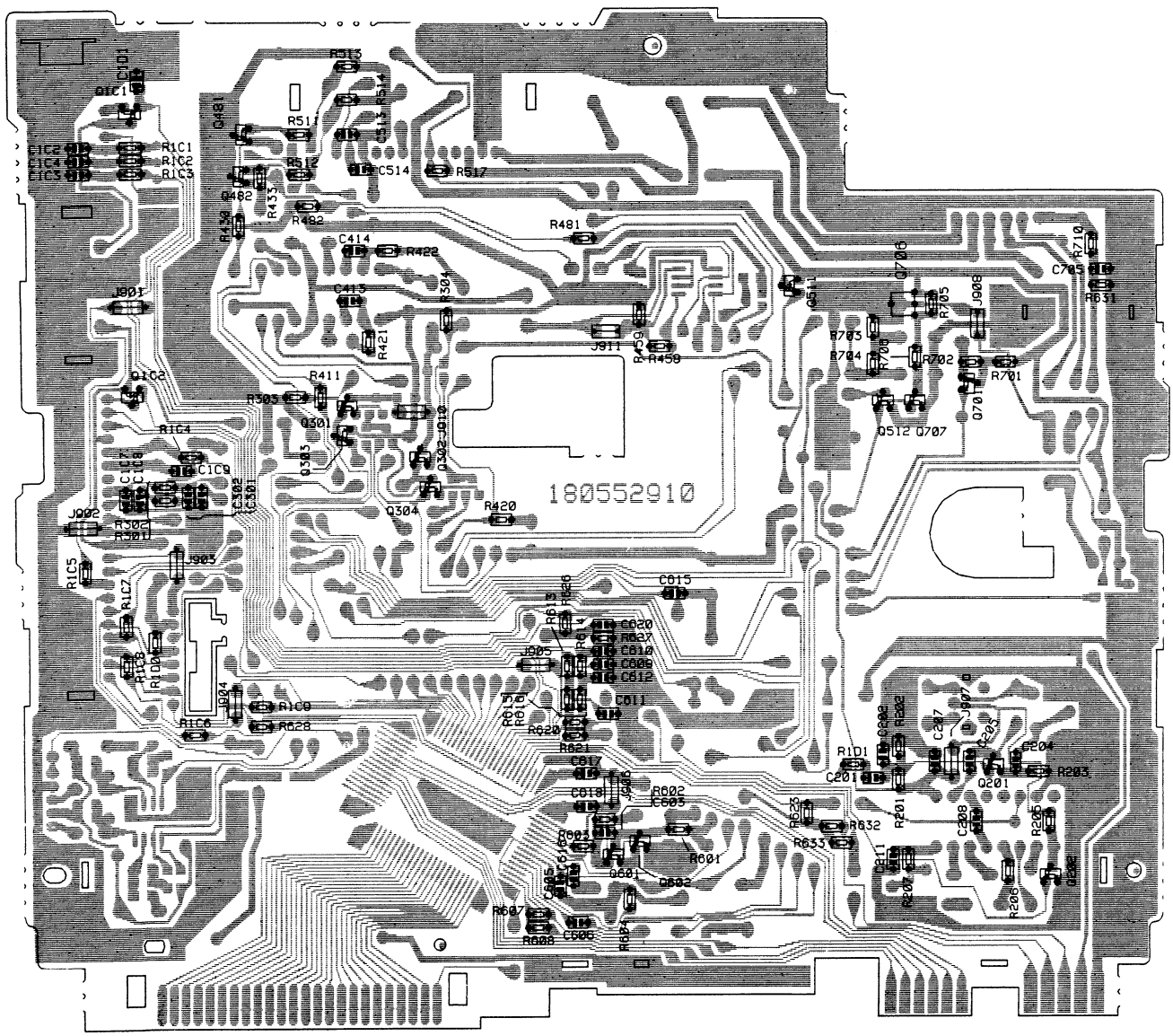


CIRCUIT BOARD DIAGRAM

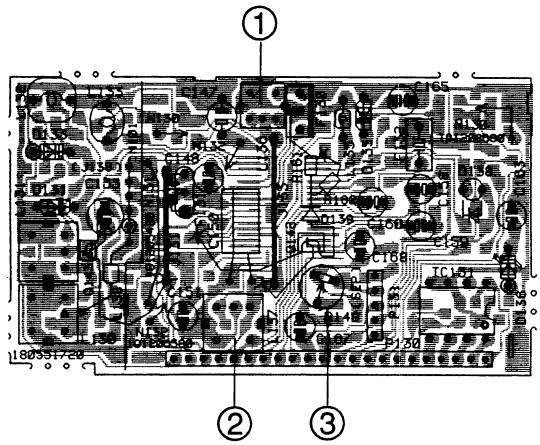
PC BOARD ASS'Y (MAIN) 35J6510/36B1110

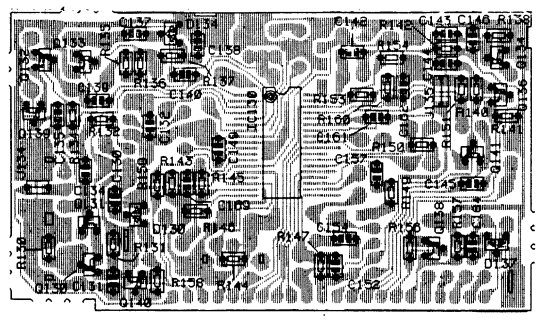


PC BOARD ASS'Y (MAIN) 35J2700/36B2100



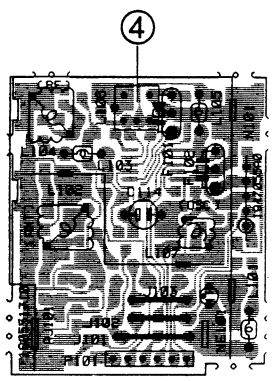
PCB BLOCK ASS'Y (IF) 3712220/3812220

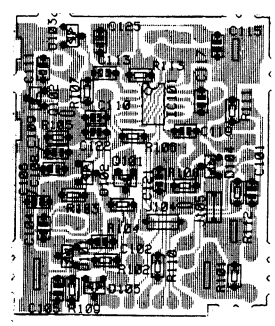




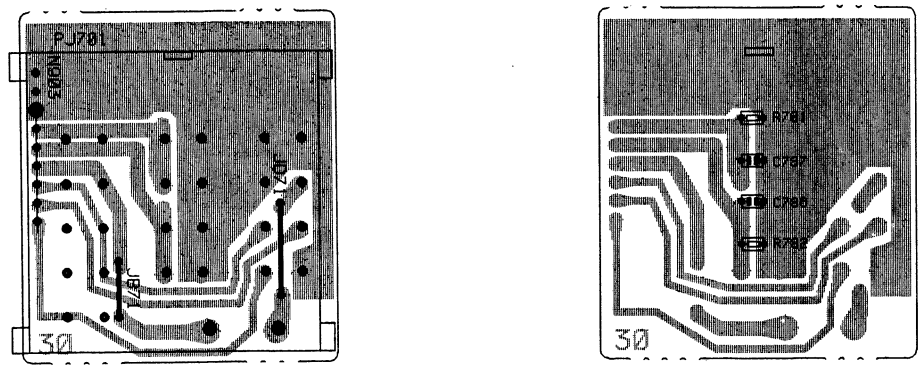
AM ① **L136**
FM ② **L137**
③ **R148**
④ **L106**

PCB BLOCK ASS'Y (F-RF) 3712210/3812210

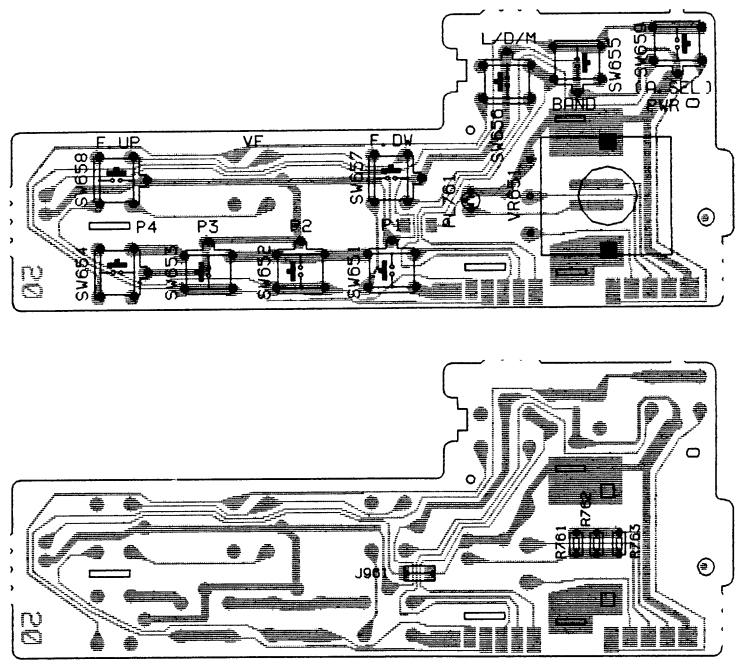




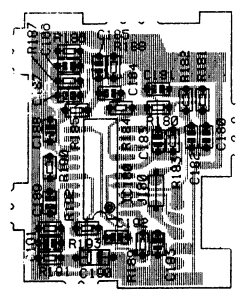
PC BOARD ASS'Y (ISO) 35J6430/36B1030



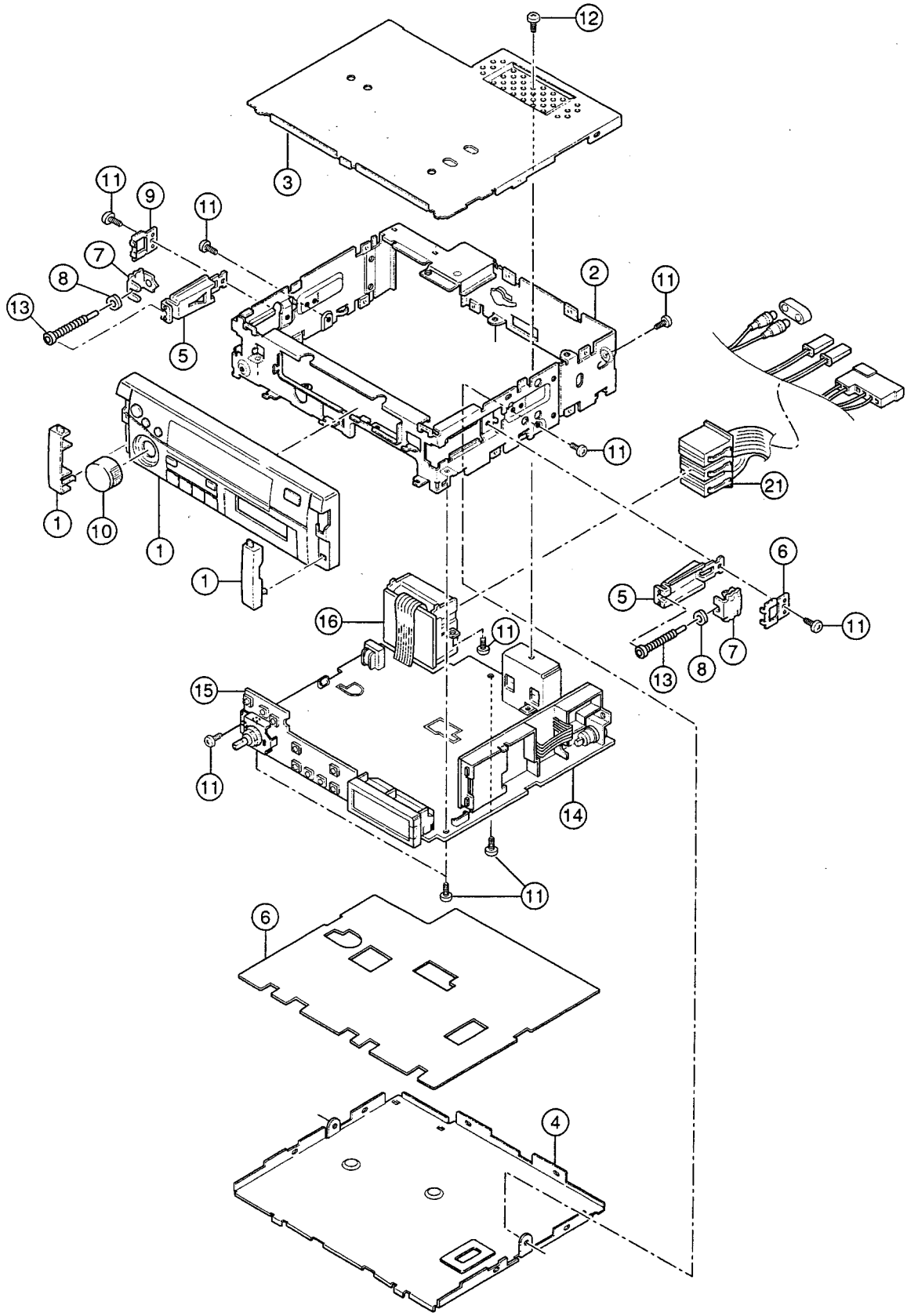
PC BOARD ASS'Y (SW) 35J6420/36B1020



PCB BLOCK ASS'Y (N.C) 3812230



CABINET & CHASSIS EXPLODED VIEW



PARTS LIST

CABINET & CHASSIS

Ref. No.	Part No.	Description
1	2232161	FACE PLATE ASS'Y, A140
2	2103434A	CHASSIS ASS'Y
3	2104511	COVER (TOP)
4	2104520	COVER (BOTTOM)
5	2117109	BRACKET ASS'Y
6	2117111	BRACKET ASS'Y
7	2121011	PLATE NUT
8	2503076	SPACER
9	2800400	INSULATOR
10	2210466	KNOB (PULSE)
11	2952265A	SCREW,DPBS-2.6X5SSA
12	2953268A	SCREW,DPBB-2.6X8SSA
13	29C430IC	BOLT,HSOM-3X35.5SSC
14	35J6510/36B1110	PC BOARD ASS'Y,MAIN
15	35J6420/36B1020	PC BOARD ASS'Y,SW
16	35J6430/36B1030	PC BOARD ASS'Y,ISO
17	28A3294	MAIN LABEL
18	28C2342	STICKER
19	28C3107	STICKER WIRING
20	28C2121	STICKER
21	2691538	CABLE ASS'Y

FACE PLATE ASS'Y 2232161

Ref. No.	Part No.	Description
1-1	2223082	FACE PLATE
1-2	2269738	PUSH BUTTON (B)
1-3	2162277	ORNAMENTAL PLATE
1-4	2216994	COVER GLASS
1-5	2269740	PUSH BUTTON (C)
1-6	2123406	SHIELD PLATE
1-7	220A083	ORNAMENTAL PANEL (A140)
1-8	2213278	SEAL (A140)
1-9	2213280	SEAL (L)
1-10	2213281	SEAL (R)

ACCESSORIES

Ref. No.	Part No.	Description
1	29X1165	SCREW KIT

MANUALS

Ref. No.	Part No.	Description
1	2884820	OWNER'S MANUAL, A140
2	2886077	SCHEMATIC DIAGRAM, A140
3	2885053	CAR RADIO CARD
4	2821002	PLASTIC BAG 170X240

PACKING MATERIALS

Ref. No.	Part No.	Description
1	2821087	PLASTIC BAG 290X380
2	2866455	SLEEVE (SET) (L)
3	2866369	SLEEVE (SET) (S)
4	2866465	PAD (SET)
5	2858040	GIFT BOX, A140
6	2854642	MASTER CARTON (6)

PC BOARD ASS'Y(MAIN)35J6510/36B1110

Ref. No.	Part No.	Description
W1C1	180552910	PC BOARD
C1C2	157A2230E	CAPACITOR,CHIP,0.022UF 25WV
C1C3	157A2230E	CAPACITOR,CHIP,0.022UF 25WV
C1C4	157A2230E	CAPACITOR,CHIP,0.022UF 25WV
C1C5	1552107G5	CAPACITOR,ELECTROLYTIC,100UF 10WV
C1C7	157A1530E	CAPACITOR,CHIP,0.015UF 25WV
C1C8	157A1530E	CAPACITOR,CHIP,0.015UF 25WV
C1C9	15712210E	CAPACITOR,CHIP,220PF 50WV
C1D0	155447525	CAPACITOR,ELECTROLYTIC,4.7UF 25WV
C1D1	157A1020E	CAPACITOR,CHIP,0.001UF 25WV
C201	15713300E	CAPACITOR,CHIP,33PF 50WV
C202	15711010E	CAPACITOR,CHIP,100PF 50WV
C203	153447205	CAPACITOR,MYLAR,0.0047UF 50WV
C204	157A1030E	CAPACITOR,CHIP,0.01UF 25WV
C205	157A1020E	CAPACITOR,CHIP,0.001UF 25WV
C206	1552107G5	CAPACITOR,ELECTROLYTIC,100UF 10WV
C207	157A1030E	CAPACITOR,CHIP,0.01UF 25WV
C208	157A1030E	CAPACITOR,CHIP,0.01UF 25WV
C209	155447525	CAPACITOR,ELECTROLYTIC,4.7UF 25WV
C210	155647425	CAPACITOR,ELECTROLYTIC,0.47UF 50WV
C211	15711010E	CAPACITOR,CHIP,100PF 50WV
C301	157A1020E	CAPACITOR,CHIP,0.001UF 25WV
C302	157A1020E	CAPACITOR,CHIP,0.001UF 25WV
C411	155610525	CAPACITOR,ELECTROLYTIC,1UF 50WV
C412	155610525	CAPACITOR,ELECTROLYTIC,1UF 50WV
C413	157A1040E	CAPACITOR,CHIP,0.1UF 25WV
C414	157A1040E	CAPACITOR,CHIP,0.1UF 25WV
C415	155647425	CAPACITOR,ELECTROLYTIC,0.47UF 50WV
C416	155647425	CAPACITOR,ELECTROLYTIC,0.47UF 50WV
C428	1553476G5	CAPACITOR,ELECTROLYTIC,47UF 16WV
C429	1552107G5	CAPACITOR,ELECTROLYTIC,100UF 10WV
C431	155610525	CAPACITOR,ELECTROLYTIC,1UF 50WV
C434	155610525	CAPACITOR,ELECTROLYTIC,1UF 50WV
C481	155322625	CAPACITOR,ELECTROLYTIC,22UF 16WV
C511	155610525	CAPACITOR,ELECTROLYTIC,1UF 50WV
C512	155610525	CAPACITOR,ELECTROLYTIC,1UF 50WV
C513	15712210E	CAPACITOR,CHIP,220PF 50WV
C514	15712210E	CAPACITOR,CHIP,220PF 50WV
C515	1552107G5	CAPACITOR,ELECTROLYTIC,100UF 10WV
C516	1553108M4	CAPACITOR,ELECTROLYTIC,1000UF 16WV
C517	1553107G5	CAPACITOR,ELECTROLYTIC,100UF 16WV
C518	1553108M4	CAPACITOR,ELECTROLYTIC,1000UF 16WV
C519	1553108M4	CAPACITOR,ELECTROLYTIC,1000UF 16WV
C601	1553106K5	CAPACITOR,ELECTROLYTIC,10UF 16WV
C602	1555475K5	CAPACITOR,ELECTROLYTIC,4.7UF 35WV
C603	157A2230E	CAPACITOR,CHIP,0.022UF 25WV
C604	1552107K5	CAPACITOR,ELECTROLYTIC,100UF 10WV
C605	157A4730E	CAPACITOR,CHIP,0.047UF 25WV
C606	15712210E	CAPACITOR,CHIP,220PF 50WV
C609	157A4730E	CAPACITOR,CHIP,0.047UF 25WV
C610	157A4730E	CAPACITOR,CHIP,0.047UF 25WV
C611	157A1040E	CAPACITOR,CHIP,0.1UF 25WV
C612	157A1040E	CAPACITOR,CHIP,0.1UF 25WV

PC BOARD ASS'Y(MAIN)35J2700/36B2100

Ref. No.	Part No.	Description
C613	1553106K5	CAPACITOR,ELECTROLYTIC,10UF 16WV
C615	157A1030E	CAPACITOR,CHIP,0.01UF 25WV
C616	157A1020E	CAPACITOR,CHIP,0.001UF 25WV
C617	15713300E	CAPACITOR,CHIP,33PF 50WV
C618	15712700E	CAPACITOR,CHIP,27PF 50WV
C620	157A2230E	CAPACITOR,CHIP,0.022UF 25WV
C701	1552107G5	CAPACITOR,ELECTROLYTIC,100UF 10WV
C702	1553108M4	CAPACITOR,ELECTROLYTIC,1000UF 16WV
C703	1553107G5	CAPACITOR,ELECTROLYTIC,100UF 16WV
C705	157A1040E	CAPACITOR,CHIP,0.1UF 25WV
D1C2	131001909	DIODE,1SS133-RT
D401	131001909	DIODE,1SS133-RT
D481	131001909	DIODE,1SS133-RT
D602	131001909	DIODE,1SS133-RT
D603	131001909	DIODE,1SS133-RT
D702	134014519	DIODE,MTZJ5.6-C-RT
D703	134014619	DIODE,MTZJ9.1-C-RT
D704	131001809	DIODE,1SS145-RT
D705	132007509	DIODE,1SR139-200-RT
ET1C1	37123D0	PCB BLOCK ASS'Y 1875-650
F601	176403130	X'TAL,HC-49U4.5M(20PPM)
H601	144018700	LCD,187
IC201	111107600	IC,BA1320
IC411	112178500	IC,MB86011P-G
IC511	111530300	IC,LA4485-TW
IC601	119224300	IC,LC7232N-8477
J901	165100006	RESISTOR,CHIP,1/8W 0OHM
J902	165100006	RESISTOR,CHIP,1/8W 0OHM
J903	165100006	RESISTOR,CHIP,1/8W 0OHM
J904	165100006	RESISTOR,CHIP,1/8W 0OHM
J905	165100006	RESISTOR,CHIP,1/8W 0OHM
J906	165100006	RESISTOR,CHIP,1/8W 0OHM
J907	165100006	RESISTOR,CHIP,1/8W 0OHM
J908	165100006	RESISTOR,CHIP,1/8W 0OHM
J910	165100006	RESISTOR,CHIP,1/8W 0OHM
J911	165100006	RESISTOR,CHIP,1/8W 0OHM
L201	171043950	COIL,SK-005B
L601	172012529	COIL,LF-5.0-101K-RT
L701	1730022B0	COIL,14-3002
N901	191220980	WIRE
N902	191220080	WIRE
N903	194000480	FLAT WIRE (B)P601 198121398POST,IL-S-8P-S2UX2-
EPL751	146009100	PILOT LAMP,91 (14V)
Q1C1	120003603	TRANSISTOR,DTC114TKT
Q1C2	120001303	TRANSISTOR,DTA124EKT
Q201	123162313	TRANSISTOR,2SC1623T-5,6
Q202	120001203	TRANSISTOR,DTC124EKT
Q301	123162313	TRANSISTOR,2SC1623T-5,6
Q302	123162313	TRANSISTOR,2SC1623T-5,6
Q303	120001203	TRANSISTOR,DTC124EKT
Q304	120001203	TRANSISTOR,DTC124EKT
Q481	120002103	TRANSISTOR,DTC143TKT
Q482	120002103	TRANSISTOR,DTC143TKT

PC BOARD ASS'Y(MAIN)35J2700/36B2100

Ref. No.	Part No.	Description
Q511	120003503	TRANSISTOR,DTA143EKT
Q512	120001203	TRANSISTOR,DTC124EKT
Q601	123162313	TRANSISTOR,2SC1623T-5,6
Q602	123362403	TRANSISTOR,2SC3624-17,18
Q701	123162313	TRANSISTOR,2SC1623T-5,6
Q704	124185811	TRANSISTOR,2SD1858T-Q,R
Q705	123174021	TRANSISTOR,2SC1740ST-Q,R
Q706	122138613	TRANSISTOR,2SB1386T-Q,R
Q707	120001203	TRANSISTOR,DTC124EKT
R1C1	165247206	RESISTOR,CHIP,1/10W 4.7KOHM
R1C2	165222406	RESISTOR,CHIP,1/10W 220KOHM
R1C3	165222406	RESISTOR,CHIP,1/10W 220KOHM
R1C4	165268206	RESISTOR,CHIP,1/10W 6.8KOHM
R1C5	165222206	RESISTOR,CHIP,1/10W 2.2KOHM
R1C6	165210306	RESISTOR,CHIP,1/10W 10KOHM
R1C7	165210306	RESISTOR,CHIP,1/10W 10KOHM
R1C8	165210306	RESISTOR,CHIP,1/10W 10KOHM
R1C9	165210306	RESISTOR,CHIP,1/10W 10KOHM
R1D0	165247306	RESISTOR,CHIP,1/10W 47KOHM
R1D1	165247206	RESISTOR,CHIP,1/10W 4.7KOHM
R201	165210406	RESISTOR,CHIP,1/10W 100KOHM
R202	165247306	RESISTOR,CHIP,1/10W 47KOHM
R203	165210306	RESISTOR,CHIP,1/10W 10KOHM
R204	1691687A0	RESISTOR,SEMI-FIXED,EVND8A-103B
R205	165210306	RESISTOR,CHIP,1/10W 10KOHM
R206	165210406	RESISTOR,CHIP,1/10W 100KOHM
R207	165222306	RESISTOR,CHIP,1/10W 22KOHM
R208	1691687A0	RESISTOR,SEMI-FIXED,EVND8A-103B
R209	161200008	RESISTOR,CARBON,1/4W 0OHM
R210	161200008	RESISTOR,CARBON,1/4W 0OHM
R301	165210306	RESISTOR,CHIP,1/10W 10KOHM
R302	165210306	RESISTOR,CHIP,1/10W 10KOHM
R303	165215206	RESISTOR,CHIP,1/10W 1.5KOHM
R304	165215206	RESISTOR,CHIP,1/10W 1.5KOHM
R411	165210306	RESISTOR,CHIP,1/10W 10KOHM
R420	165210306	RESISTOR,CHIP,1/10W 10KOHM
R421	165215206	RESISTOR,CHIP,1/10W 1.5KOHM
R422	165215206	RESISTOR,CHIP,1/10W 1.5KOHM
R430	165210206	RESISTOR,CHIP,1/10W 1KOHM
R433	165210206	RESISTOR,CHIP,1/10W 1KOHM
R458	165222206	RESISTOR,CHIP,1/10W 2.2KOHM
R459	165227206	RESISTOR,CHIP,1/10W 2.7KOHM
R481	165210206	RESISTOR,CHIP,1/10W 1KOHM
R482	165210406	RESISTOR,CHIP,1/10W 100KOHM
R511	165210306	RESISTOR,CHIP,1/10W 10KOHM
R512	165210306	RESISTOR,CHIP,1/10W 10KOHM
R513	165239306	RESISTOR,CHIP,1/10W 39KOHM
R514	165239306	RESISTOR,CHIP,1/10W 39KOHM
R517	165210406	RESISTOR,CHIP,1/10W 100KOHM
R601	165210206	RESISTOR,CHIP,1/10W 1KOHM
R602	165215206	RESISTOR,CHIP,1/10W 1.5KOHM
R603	165210206	RESISTOR,CHIP,1/10W 1KOHM
R604	165222306	RESISTOR,CHIP,1/10W 22KOHM

PC BOARD ASS'Y(MAIN)35J2700/36B2100

Ref. No.	Part No.	Description
R606	165247306	RESISTOR,CHIP,1/10W 47KOHM
R607	165247306	RESISTOR,CHIP,1/10W 47KOHM
R608	165210406	RESISTOR,CHIP,1/10W 100KOHM
R613	165247306	RESISTOR,CHIP,1/10W 47KOHM
R614	165247306	RESISTOR,CHIP,1/10W 47KOHM
R615	165222306	RESISTOR,CHIP,1/10W 22KOHM
R616	165222306	RESISTOR,CHIP,1/10W 22KOHM
R620	165210306	RESISTOR,CHIP,1/10W 10KOHM
R621	165210306	RESISTOR,CHIP,1/10W 10KOHM
R623	165247306	RESISTOR,CHIP,1/10W 47KOHM
R626	165222206	RESISTOR,CHIP,1/10W 2.2KOHM
R627	165222306	RESISTOR,CHIP,1/10W 22KOHM
R628	165247206	RESISTOR,CHIP,1/10W 4.7KOHM
R631	165222306	RESISTOR,CHIP,1/10W 22KOHM
R632	165247306	RESISTOR,CHIP,1/10W 47KOHM
R633	165247306	RESISTOR,CHIP,1/10W 47KOHM
R701	165210106	RESISTOR,CHIP,1/10W 100OHM
R702	165210306	RESISTOR,CHIP,1/10W 10KOHM
R703	165247106	RESISTOR,CHIP,1/10W 470OHM
R704	165233106	RESISTOR,CHIP,1/10W 330OHM
R705	165222306	RESISTOR,CHIP,1/10W 22KOHM
R706	165222206	RESISTOR,CHIP,1/10W 2.2KOHM
R710	165247306	RESISTOR,CHIP,1/10W 47KOHM
	198300101	JUMPER 5MM (INSERT)
	198301801	JUMPER 7.5MM (INSERT)
	198301901	JUMPER 10MM (INSERT)
	198302001	JUMPER 12.5MM (INSERT)
	198302101	JUMPER 15MM (INSERT)
	198302201	JUMPER 17.5MM (INSERT)
	198302901	JUMPER 20MM (INSERT)
	2114395	HEATSINK (P)
	2117476	BRACKET (LCD)
	2212603	HLDER (LCD)
	2903308A	SCREW,TPB2J-3X8SSA

PCB BLOCK ASS'Y(F-RF)3712210/3812210

Ref. No.	Part No.	Description
W101	180551710	PC BOARD
AJ101	196508800	ANT JACK ASS'Y
C101	157A2230E	CAPACITOR,CHIP,0.022UF 25WV
C102	15711500E	CAPACITOR,CHIP,15PF 50WV
C104	157A1020E	CAPACITOR,CHIP,0.001UF 25WV
C105	157A2230E	CAPACITOR,CHIP,0.022UF 25WV
C106	15711200E	CAPACITOR,CHIP,12PF 50WV
C108	15716R00E	CAPACITOR,CHIP,6PF 50WV
C109	15716R00E	CAPACITOR,CHIP,6PF 50WV
C110	157A2230E	CAPACITOR,CHIP,0.022UF 25WV
C111	15713R00E	CAPACITOR,CHIP,3PF 50WV
C112	15715R00E	CAPACITOR,CHIP,5PF 50WV
C112	15776R00E	CAPACITOR,CHIP,6PF 50WV
C113	15713R00E	CAPACITOR,CHIP,3PF 50WV
C114	155310625	CAPACITOR,ELECTROLYTIC,10UF 16WV
C115	157A1040E	CAPACITOR,CHIP,0.1UF 25WV
C117	157A1040E	CAPACITOR,CHIP,0.1UF 25WV
C119	15718R00E	CAPACITOR,CHIP,8PF 50WV
C121	157A1020E	CAPACITOR,CHIP,0.001UF 25WV
C122	157A1020E	CAPACITOR,CHIP,0.001UF 25WV
C125	15771010E	CAPACITOR,CHIP,100PF 50WV
D101	135003903	DIODE,1SV234T-TA
D102	135004203	DIODE,KV1430T-4,5
D103	135004203	DIODE,KV1430T-4,5
D104	135004203	DIODE,KV1430T-4,5
D105	132003603	DIODE,DAP202KT
F101	175200960	CERAMIC,FILTER,SEF10.7MS2GK-A
F102	175200960	CERAMIC,FILTER,SEF10.7MS2GK-A
IC101	111592303	IC,LA1178M-CT
J104	165100006	RESISTOR,CHIP,1/8W 0OHM
J105	165100006	RESISTOR,CHIP,1/8W 0OHM
L101	172011929	COIL,LF-5.0-4R7K-RT
L102	170019800	COIL,1R7-7R5SR
L103	172011729	COIL,LF-5.0-2R2M-RT
L104	170019800	COIL,1R7-7R5SR
L105	172012129	COIL,LF-5.0-100K-RT
L106	171047050	COIL,FM-MIX
L107	170019700	COIL,1R4-7R5TR
N101	1947055A0	FLAT WIRE
NE101	146006400	NEON BULB,NE3811
P101	1981206A6	POST,TKX-P06P-A3
Q101	120001803	TRANSISTOR,DTA114TKT
Q102	126054313	TRANSISTOR,2SK543T-F
R101	165222406	RESISTOR,CHIP,1/10W 220KOHM
R102	165210206	RESISTOR,CHIP,1/10W 1KOHM
R103	165222306	RESISTOR,CHIP,1/10W 22KOHM
R104	165210406	RESISTOR,CHIP,1/10W 100KOHM
R105	165210406	RESISTOR,CHIP,1/10W 100KOHM
R106	165247006	RESISTOR,CHIP,1/10W 47OHM
R107	165247306	RESISTOR,CHIP,1/10W 47KOHM
R108	165210306	RESISTOR,CHIP,1/10W 10KOHM
R109	165210206	RESISTOR,CHIP,1/10W 1KOHM
R110	165210106	RESISTOR,CHIP,1/10W 100OHM

PCB BLOCK ASS'Y(F-RF)3712210/3812210

Ref. No.	Part No.	Description
R112	165233206	RESISTOR,CHIP,1/10W 33KOHM
R113	165210306	RESISTOR,CHIP,1/10W 10KOHM
R114	165233106	RESISTOR,CHIP,1/10W 330OHM
	198301801	JUMPER 7.5MM (INSERT)
	198301901	JUMPER 10MM (INSERT)
	2123400	SHIELD PLATE (A)

PCB BLOCK ASS'Y(IF)3712220/3812220

Ref. No.	Part No.	Description
W102	180551720	PC BOARD
C130	157A1520E	CAPACITOR,CHIP,0.0015UF 25WV
C131	157A6820E	CAPACITOR,CHIP,0.0068UF 25WV
C132	157A2230E	CAPACITOR,CHIP,0.022UF 25WV
C133	1553226K6	CAPACITOR,ELECTROLYTIC,22UF 16WV
C134	157A1030E	CAPACITOR,CHIP,0.01UF 25WV
C135	157A1520E	CAPACITOR,CHIP,0.0015UF 25WV
C137	157A2220E	CAPACITOR,CHIP,0.0022UF 25WV
C138	157A2230E	CAPACITOR,CHIP,0.022UF 25WV
C139	15712210E	CAPACITOR,CHIP,220PF 50WV
C140	15781810E	CAPACITOR,CHIP,180PF 50WV
C142	157A2230E	CAPACITOR,CHIP,0.022UF 25WV
C143	157F3910E	CAPACITOR,CHIP,390PF 50WV
C144	15712200E	CAPACITOR,CHIP,22PF 50WV
C145	157A1020E	CAPACITOR,CHIP,0.001UF 25WV
C146	157A2230E	CAPACITOR,CHIP,0.022UF 25WV
C147	155610525	CAPACITOR,ELECTROLYTIC,1UF 50WV
C148	1556335K6	CAPACITOR,ELECTROLYTIC,3.3UF 50WV
C149	157A4730E	CAPACITOR,CHIP,0.047UF 25WV
C150	1552107G0	CAPACITOR,ELECTROLYTIC,100UF 10WV
C151	1556335K6	CAPACITOR,ELECTROLYTIC,3.3UF 50WV
C152	15714700E	CAPACITOR,CHIP,47PF 50WV
C154	157A1020E	CAPACITOR,CHIP,0.001UF 25WV
C157	157A4730E	CAPACITOR,CHIP,0.047UF 25WV
C158	1556224K6	CAPACITOR,ELECTROLYTIC,0.22UF 50WV
C159	1556105K6	CAPACITOR,ELECTROLYTIC,1UF 50WV
C160	1556105K6	CAPACITOR,ELECTROLYTIC,1UF 50WV
C161	157A3320E	CAPACITOR,CHIP,0.0033UF 25WV
C162	157A1040E	CAPACITOR,CHIP,0.1UF 25WV
C163	1553106K6	CAPACITOR,ELECTROLYTIC,10UF 16WV
C164	157A1040E	CAPACITOR,CHIP,0.1UF 25WV
C165	1553226K6	CAPACITOR,ELECTROLYTIC,22UF 16WV
C167	1556105K6	CAPACITOR,ELECTROLYTIC,1UF 50WV
C168	1556105K6	CAPACITOR,ELECTROLYTIC,1UF 50WV
C169	157A4730E	CAPACITOR,CHIP,0.047UF 25WV
D130	132002803	DIODE,1SS123-T
D131	135003706	DIODE,SVC324T-AC2
D133	131001909	DIODE,1SS133-RT
D134	132002803	DIODE,1SS123-T

PCB BLOCK ASS'Y(IF)3712220/3812220

Ref. No.	Part No.	Description
D135	135003706	DIODE,SVC324T-AC2
D136	134018119	DIODE,MTZJ8.2-B-RT
D137	132002803	DIODE,1SS123-T
D138	141019600	LED,SEL4214R
D139	131001900	DIODE,1SS133
F130	175104660	CERAMIC,FILTER,PFB450JR3
F131	175200960	CERAMIC,FILTER,SFE10.7MS2GK-A
F132	175306760	CERAMIC,FILTER,CSB456FB23
IC130	111593303	IC,LA1875M-CT
IC131	113020D00	IC,CAT93C46P
J134	165200006	RESISTOR,CHIP,1/10W 0OHM
J135	165100006	RESISTOR,CHIP,1/8W 0OHM
L130	171045150	COIL,RFT-33MH
L131	171047150	COIL,MW-270
L132	172019934	COIL,EL0607RA-332J-FT
L133	172011334	COIL,EL0405RA-102J-FT
L135	172012529	COIL,LF-5.0-101K-RT
L136	171038920	COIL,AM-IFT
L137	171039510	COIL,FW-IFT
L138	172012327	COIL,LF-5.0-330K-ST
N130	191208680	WIRE
N131	191205480	WIRE
N132	191206580	WIRE
P130	1981206AM	POST,TKX-P22P-A3
P131	1981239A5	POST,TKX-P05P-M1
Q130	126100113	TRANSISTOR,2SK1001T-41,42
Q131	123162313	TRANSISTOR,2SC1623T-5,6
Q132	123162313	TRANSISTOR,2SC1623T-5,6
Q133	120001203	TRANSISTOR,DTC124EKT
Q134	120007103	TRANSISTOR,DTC143TKT
Q136	123162313	TRANSISTOR,2SC1623T-5,6
Q138	123162313	TRANSISTOR,2SC1623T-5,6
Q139	120007103	TRANSISTOR,DTC143TKT
Q140	120003603	TRANSISTOR,DTC114TKT
Q141	123162313	TRANSISTOR,2SC1623T-5,6
Q142	123174020	TRANSISTOR,2SC1740S-Q,R
R130	165247406	RESISTOR,CHIP,1/10W 470KOHM
R131	165268106	RESISTOR,CHIP,1/10W 680OHM
R132	165222506	RESISTOR,CHIP,1/10W 2.2MOHM
R134	165210306	RESISTOR,CHIP,1/10W 10KOHM
R135	165247006	RESISTOR,CHIP,1/10W 47OHM
R136	165210206	RESISTOR,CHIP,1/10W 1KOHM
R137	165210206	RESISTOR,CHIP,1/10W 1KOHM
R138	165210506	RESISTOR,CHIP,1/10W 1MOHM
R140	165210406	RESISTOR,CHIP,1/10W 100KOHM
R141	165222206	RESISTOR,CHIP,1/10W 2.2KOHM
R142	165222306	RESISTOR,CHIP,1/10W 22KOHM
R143	165227406	RESISTOR,CHIP,1/10W 270KOHM
R144	165210306	RESISTOR,CHIP,1/10W 10KOHM
R145	165282206	RESISTOR,CHIP,1/10W 8.2KOHM
R146	165268206	RESISTOR,CHIP,1/10W 6.8KOHM
R147	165256306	RESISTOR,CHIP,1/10W 56KOHM
R148	169152197	RESISTOR,SEMI-FIXED,H0651A-223B-MT

PCB BLOCK ASS'Y(IF)3712220/3812220

Ref. No.	Part No.	Description
R149	165239306	RESISTOR,CHIP,1/10W 39KOHM
R150	165256206	RESISTOR,CHIP,1/10W 5.6KOHM
R151	165210206	RESISTOR,CHIP,1/10W 1KOHM
R153	165247306	RESISTOR,CHIP,1/10W 47KOHM
R154	165215306	RESISTOR,CHIP,1/10W 15KOHM
R156	165210306	RESISTOR,CHIP,1/10W 10KOHM
R157	165247206	RESISTOR,CHIP,1/10W 4.7KOHM
R158	165268206	RESISTOR,CHIP,1/10W 6.8KOHM
R159	165247306	RESISTOR,CHIP,1/10W 47KOHM
R160	165247406	RESISTOR,CHIP,1/10W 470KOHM
R161	161333201	RESISTOR,CARBON,1/6W 3.3KOHM
R162	161327101	RESISTOR,CARBON,1/6W 270OHM
	198302101	JUMPER 15MM (INSERT)
	198302901	JUMPER 20MM (INSERT)
	2123401	SHIELD PLATE (B)

PCB BLOCK ASS'Y(N.C)3812230

Ref. No.	Part No.	Description
W103	180551730	PC BOARD
C180	15786810E	CAPACITOR,CHIP,680PF 50WV
C181	15786810E	CAPACITOR,CHIP,680PF 50WV
C182	157F1220E	CAPACITOR,CHIP,0.0012UF 50WV
C183	15716800E	CAPACITOR,CHIP,68PF 50WV
C184	15783310E	CAPACITOR,CHIP,330PF 50WV
C185	15783310E	CAPACITOR,CHIP,330PF 50WV
C186	15783310E	CAPACITOR,CHIP,330PF 50WV
C187	15783310E	CAPACITOR,CHIP,330PF 50WV
C188	157A1030E	CAPACITOR,CHIP,0.01UF 25WV
C189	157A1030E	CAPACITOR,CHIP,0.01UF 25WV
C190	15822250D	CAPACITOR,CHIP,22UF 10WV
C191	15784710E	CAPACITOR,CHIP,470PF 50WV
C192	157A6820E	CAPACITOR,CHIP,0.0068UF 25WV
C193	157A1030E	CAPACITOR,CHIP,0.01UF 25WV
IC180	111594303	IC,LA2110M-CT
J180	165100006	RESISTOR,CHIP,1/8W 0OHM
R180	165247206	RESISTOR,CHIP,1/10W 4.7KOHM
R181	165247206	RESISTOR,CHIP,1/10W 4.7KOHM
R182	165247206	RESISTOR,CHIP,1/10W 4.7KOHM
R183	165247206	RESISTOR,CHIP,1/10W 4.7KOHM
R184	165247206	RESISTOR,CHIP,1/10W 4.7KOHM
R185	165222206	RESISTOR,CHIP,1/10W 2.2KOHM
R186	165222206	RESISTOR,CHIP,1/10W 2.2KOHM
R187	165227206	RESISTOR,CHIP,1/10W 2.7KOHM
R188	165222306	RESISTOR,CHIP,1/10W 22KOHM
R189	165210406	RESISTOR,CHIP,1/10W 100KOHM
R190	165256206	RESISTOR,CHIP,1/10W 5.6KOHM
R191	165247306	RESISTOR,CHIP,1/10W 47KOHM
R192	165268306	RESISTOR,CHIP,1/10W 68KOHM
R193	165239206	RESISTOR,CHIP,1/10W 3.9KOHM

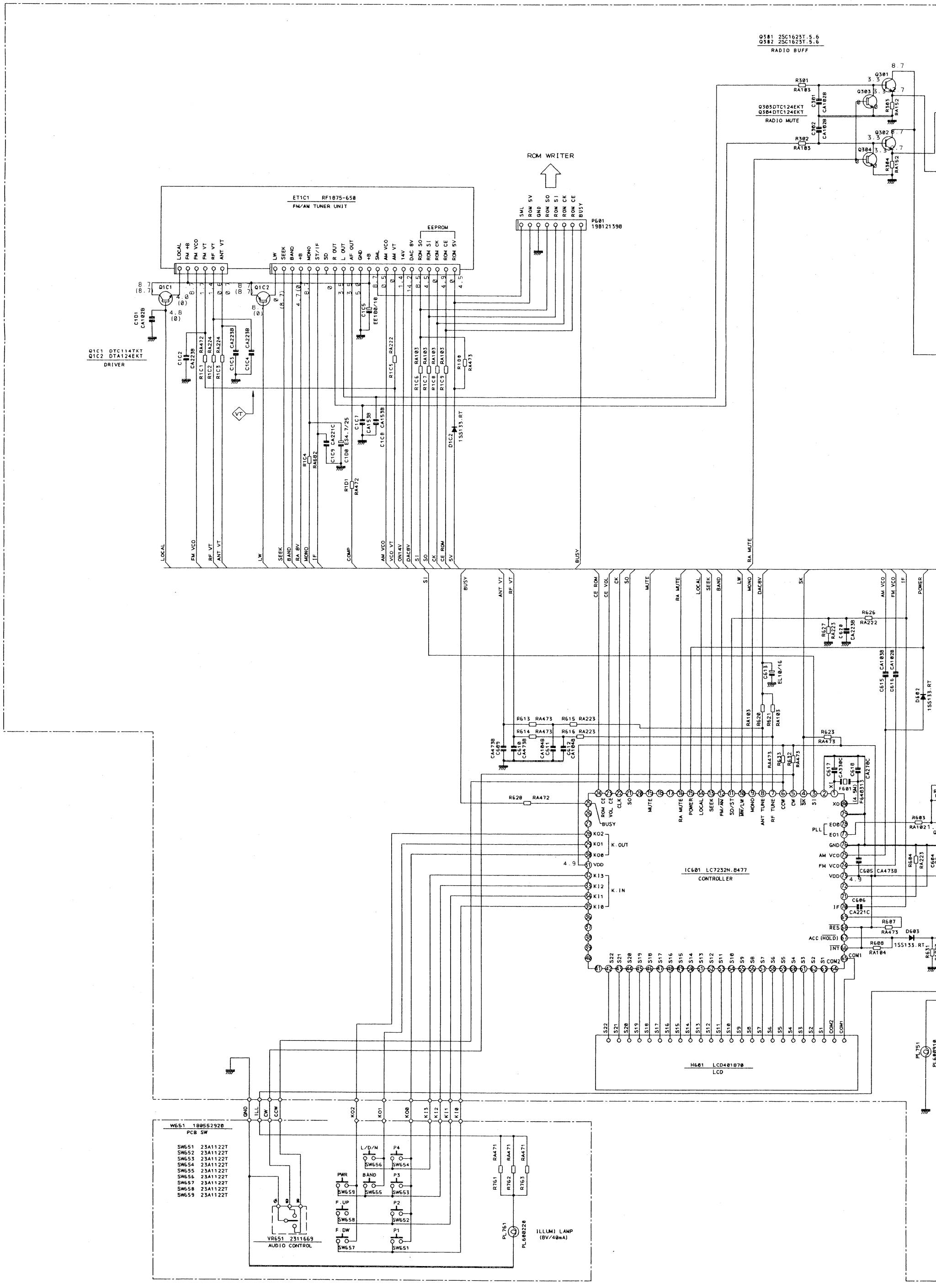
PC BOARD ASS'Y(SW)35J6420/36B1020

Ref. No.	Part No.	Description
W651	180552920	PC BOARD
J961	165100006	RESISTOR,CHIP,1/8W 0OHM
PL764	146002200	PILOT LAMP,19
R761	165247106	RESISTOR,CHIP,1/10W 470OHM
R762	165247106	RESISTOR,CHIP,1/10W 470OHM
R763	165247106	RESISTOR,CHIP,1/10W 470OHM
SW651	23A1122	SWITCH SKHHPQ
SW652	23A1122	SWITCH SKHHPQ
SW653	23A1122	SWITCH SKHHPQ
SW654	23A1122	SWITCH SKHHPQ
SW655	23A1122	SWITCH SKHHPQ
SW656	23A1122	SWITCH SKHHPQ
SW657	23A1122	SWITCH SKHHPQ
SW658	23A1122	SWITCH SKHHPQ
SW659	23A1122	SWITCH SKHHPQ
VR651	2311669	VOLUME(PLUSE SWITCH)
	2117479	BRACKET (PULSE)
	29F3013E	NUT,P-9X11X2X0.75SSE
	29G1050E	WASHER,ZSC-9X14X0.5SSE

PC BOARD ASS'Y(ISO)35J6430/36B1030

Ref. No.	Part No.	Description
W781	180552930	PC BOARD
C786	15711010E	CAPACITOR,CHIP,100PF 50WV
C787	15711010E	CAPACITOR,CHIP,100PF 50WV
PJ781	2656224	ISO CONNECTOR ASS'Y (9P)
R781	165233106	RESISTOR,CHIP,1/10W 330OHM
R782	165233106	RESISTOR,CHIP,1/10W 330OHM
	198301801	JUMPER 7.5MM (INSERT)
	198302001	JUMPER 12.5MM (INSERT)

SCHEMATIC DIAGRAM



IC411 MB86811P.G
AF PROCESSOR

Q4B1 DTC143TKT
Q4B2 DTC143TKT
MUTE

DTC143TKT
R1=4.7K
DTC114TKT
R1=10K
DTC144TKT
R1=47K

DTC124EKT
R1=22K R2=22K

DTA143EKT
R1=4.7K R2=4.7K
DTA124EKT
R1=22K R2=22K

IC511 LA4485
POWER AMP

Q511 DTA143EKT
Q512 DTC124EKT
STAND-BY

Q601 2SC1623T.5.6
Q602 2SC3624T.17.18
PLL LPF

Q704 2SD1858T.Q.R
Q705 2SC1748ST.Q.R
REGULATOR 8V

Q701 2SC1623T.5.6
REGULATOR 5V

Q706 2SB1386T.Q.R
Q707 DTC124EKT
POWER SW

W1C1 180552910
PCB MAIN

W701 180552930
PCB ISO

AUTO ANTENNA: Max.300mA 14VDC

JC201 BA1320
SK DETECTOR

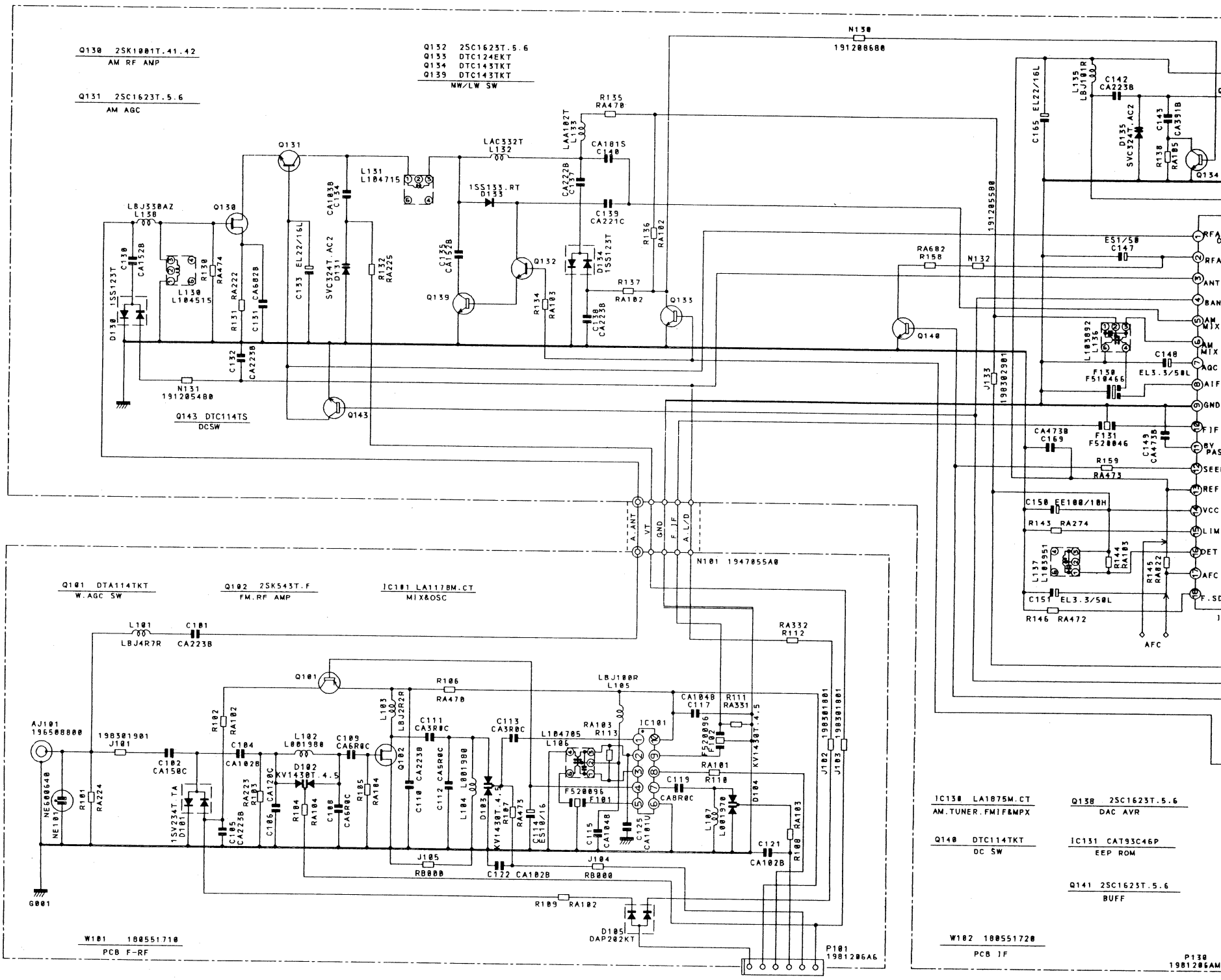
Q201 2SC1623T.5.6
57KHz AMP

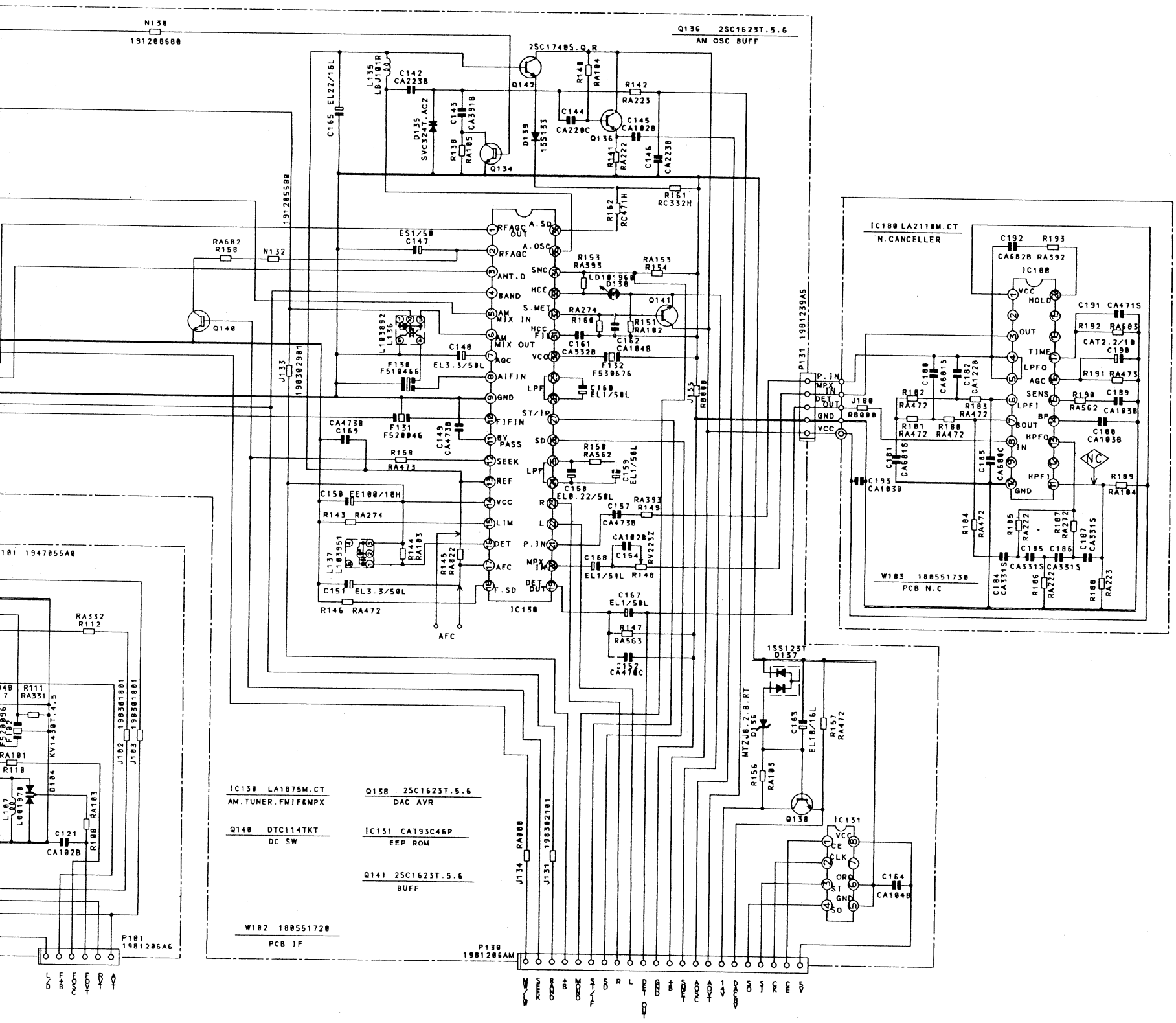
Q202 DTC124EKT
VCO STOP

LCD LAMP
(14V/120mA)

Service Manual
FM/AM Radio
A140 No.289A112

IF 3712220/3812220




N138
191208680
Q136 2SC1623T.5.6
AM OSC BUFF
2SC1740S.Q.R
C165 EL22/16L
L135 LBJ101R
C142 CA223B
Q142
R148 RA184
R142 RA223
C144 CA220C
C145 CA102B
Q136
D135 SVC324T.AC2
C143 CA331B
R138 RA185
Q134
D139 1SS133
R141 RA222
C146 CA223B
R161 RC332H
R162 RC471H
191205580
RA682 R158
N132
Q140
ES1/50 C147
RFAGC OUT
RFAGC
ANT.D
BAND
AM MIX IN
AM MIX OUT
AGC
AIFIN
GND
FIFIN
BY PASS
SEEK
REF
VCC
LIM
DET
AFC
A.SD
A.OSC
SNC
HCC
S.MET
HCC FIL
VCO
LPF
ST/IP
SD
LPF
R
L
P.IN
MPX IN
DET OUT
F.SD
IC130
R153 RA393
RA153 R154
LD18.96 D138
Q141
R160
R151 RA182
C161 CA332B
C162 CA104B
F132 F530676
L135 L183892
C148
F130 F510466
J133 1983829B1
EL3.3/50L
C160 EL1/50L
J135 R8000
CA473B C169
F131 F520046
C149 CA473B
R159 RA473
R150 RA562
C158 EL0.22/50L
C159 EL1/50L
C150 EE100/10H
R143 RA274
C157 CA473B
R149
L137 L183951
R144 RA183
R145 RA822
C151 EL3.3/50L
R146 RA472
CA1020B RV223Z
C168 EL1/50L
R140
C154
C167 EL1/50L
R147 RA563
C152 CA470C
AFC
P131 1981239A5
P.IN
MPX IN
DET OUT
GND
VCC
J180 R8000
IC180 LA2110M.CT
N.CANCELLER
C192 CA682B
R193 RA392
IC180
VCC
HOLD
OUT
TIME
LPFO
AGC
SENS
LPFI
BOUT
HPFO
IN
HPFI
GND
C191 CA471S
R192 RA683
CAT2.2/10
C190
R191 RA473
R190 RA562
C189 CA103B
C188 CA103B
R189 RA104
NC
C180 CA681S
C182 CA122B
C181 CA681S
C183 CA680C
C193 CA103B
R182 RA472
R183 RA472
R181 RA472
R180 RA472
R184 RA472
R185 RA222
R187 RA272
C185 CA331S
C186 CA331S
C187 CA331S
C184 CA331S
R186 RA222
R188 RA223
W183 180551738
PCB N.C
1SS123T D137
MTZJ8.2.B.RT D136
C163 EL10/16L
R157 RA472
R156 RA183
Q138
IC131
VCC
CE
CLK
ORG
SI
GND
SO
C164 CA104B
RA332 R112
R111 RA331
RA101 R118
D104
L187 L001970
C121 CA102B
R108 RA103
J102 1983618B1
J103 1983818B1
P101 1981206A6
IC138 LA1875M.CT
AM.TUNER.FMIF&MPX
Q138 2SC1623T.5.6
DAC AVR
Q140 DTC114TKT
DC SW
IC131 CAT93C46P
EEP ROM
Q141 2SC1623T.5.6
BUFF
W182 180551728
PCB IF
J134 RA000
J131 1983821B1
P130 1981205AM
LO FB FOSC FOUT DAT
MW SERR BAND TB MOD STIF SD RL DET OUT GND TB SQNT AOUT 10V DXSD ST CK CE 5V